

## SEQUENCE LISTING

<110> CANON KABUSHIKI KAISHA, et al.

<120> Kit for immobilizing organic substance, organic substance-immobilized structure, and manufacturing methods therefor

<130> 10002556W001

<150> JP2004-016858

<151> 2004-01-26

<160> 181

<170> MS-WORD

<210> 1

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> anodisk membrane-binding peptide

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Val Tyr Ala Asn Gln Thr Pro Pro Ser Lys Ala Arg  
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<210> 2

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Gln Ser Ser Ile Thr Thr Arg Asn Pro Phe Met Thr  
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Phe Met Asn His His Pro Asn Ser Gln Gln Tyr His  
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<223> anodisk membrane-binding peptide

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<210> 7  
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<210> 8  
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<400> 8  
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<210> 9  
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<400> 9  
Asp His Gln Leu His Arg Pro Pro His Met Met Arg  
1 5 10

<210> 10  
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Val Ser Arg His Gln Ser Trp His Pro His Asp Leu  
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<210> 11  
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<220>  
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<400> 11  
Met Met Gln Arg Asp His His Gln His Asn Ala Gln  
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<210> 12  
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<400> 12  
Val Thr Leu His Thr Val Asp His Ala Pro Gln Asp  
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<210> 13  
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<220>  
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<210> 14  
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<220>  
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<210> 15  
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<212> PRT  
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<210> 16  
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<212> PRT  
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<220>  
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<400> 16  
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<210> 17  
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<400> 17  
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<400> 18  
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<400> 22  
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<400> 24  
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<400> 26  
His His Pro Met Tyr Ser Met Thr Arg Ala Leu Pro  
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<210> 27  
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<400> 27  
Gly Ser Ala His Ser Arg Asn Asp Ala Ala Pro Val  
1 5 10

<210> 28  
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<212> PRT  
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<220>  
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<400> 28  
His Ser Pro Leu Met Gln Tyr His Met Ser Gly Thr  
1 5 10

<210> 29  
<211> 12  
<212> PRT  
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<220>  
<223> anodisk membrane-binding peptide

<400> 29  
Thr Ala His Met Thr Met Pro Ser Arg Phe Leu Pro  
1 5 10

<210> 30  
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<400> 30  
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<210> 31  
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<212> PRT

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<223> anodisk membrane-binding peptide

<400> 31

Ala Cys Asn Gly Met Leu Ala Phe Gln Cys  
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<210> 32

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<213> Artificial Sequence

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<400> 32

Ala Cys Thr Pro Lys Pro Gly Lys His Cys  
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<210> 33

<211> 1680

<212> DNA

<213> Pseudomonas cichorii

<220>

<223> Pseudomonas cichorii YN2 ; FERM BP-7375

<400> 33

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caggccatca agcaaccggc gcacagcgtc aaacatgtcg cgcaacttgg	180
aagaacgtac tgctggtaa atccgggctg caaccgacca gcgatgaccg	240
gatccggcct ggagccagaa cccgccttat aaacgttatt tgcaaaccta	300
cgcaaggaac tccacgactg gatcgatgaa agtaacctcg ccccaagga	360
gggcacttgc tgatcaacct catgaccgaa gccatggcgc cgaccaacac	420
ccggcggcag tcaaacgctt ttgcgaaacc ggtagcaaaa gcctgctcga	480
cacctggcca aggatcttgtt acacaacggc ggcatgccga gccaggtaa	540
tgcgaggctcg gcaagaggct gggcgtgacc gaaggcgcgg tggtgtttcg	600
ctggaaactga tccagtacaa gccgaccacc gagcaggat acgaacgccc	660
gtgccgccc agatcaacaa gttctacgtt ttgcacctga gcccggacaa	720
cggttctgcc tgcgcaacaa cgtgcaaacc ttcatcgta gctggcgaaa	780
gaacagcgag agtggggcct gtcgaccc tacatcgatccc tcaaggaagc	840
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<210> 34  
 <211> 1683  
 <212> DNA  
 <213> Pseudomonas cichorii  
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 <223> Pseudomonas cichorii YN2 ; FERM BP-7375

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	catggcctgc	gccaccccg	gcacacggcg	cgacacgcct	tgaaactggg	tggtaacttg	180
	ggacgcgtgt	tgctggcgca	caccctgcat	cccaccaacc	cgcaagacgg	tcgtttcgac	240
	gatccggcgt	ggagtccaa	tcccttttat	cgtgcagcc	tgcaggcgta	cctgagctgg	300
	cagaagcagg	tcaagagctg	gatgcacgaa	agcaacatga	gcccggatga	ccgcgcccgt	360
	gcgcacttcg	cgttcgcct	gtcaacgat	gccgtgtcgc	cgtccaacag	cctgtcaat	420
	ccgcgtggcg	tcaaggaaat	cttcaactcc	ggcggcaaca	gcctggcg	cgggatcgcc	480
	catctggtcg	atgaccttt	gcacaacgat	ggcttgc	ggcaagtcac	caggcatgca	540
	ttcgaggttg	gcaagaccgt	cgccaccacc	accggcgccg	tggtgttgc	caacgagctg	600
	ctggagctga	tccaatacaa	gccgatgagc	gaaaagcagt	attccaaacc	gctgcgggg	660
	gtgccgcccac	agatcaacaa	gtactacatt	tttgcaccta	gccccataa	cagttcgic	720
	cagttcgcc	tcaagaacgg	cctgcaaacc	ttcgtcatca	gtggcgcaa	tccggatgta	780
	cgtcaccgcg	aatggggcct	gtcgacctac	gtcgaagcgg	tggaagaagc	catgaatgtc	840
	tgccggccaa	tcacccggcgc	gcccggaggc	aacctgatgg	gcccgtgcgc	tggcgggctg	900
	accattgctg	ccctgcaggg	ccacttgcaa	gccaagcgcac	agctgcgcgg	cgtcicccagc	960

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 tga 1683

&lt;210&gt; 35

&lt;211&gt; 559

&lt;212&gt; PRT

&lt;213&gt; Pseudomonas cichorii YN2 ; FERM BP-7375

&lt;400&gt; 35

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Thr	Leu	Gly	Leu	Asn	Pro	Val	Val	Gly	Leu	Arg	Gly	Lys	Asp	Leu	Leu
								25				30			

Ala	Ser	Ala	Arg	Met	Val	Leu	Arg	Gln	Ala	Ile	Lys	Gln	Pro	Val	His
								35			40				45

Ser	Val	Lys	His	Val	Ala	His	Phe	Gly	Leu	Glu	Leu	Lys	Asn	Val	Leu
								50			55				60

Leu	Gly	Lys	Ser	Gly	Leu	Gln	Pro	Thr	Ser	Asp	Asp	Arg	Arg	Phe	Ala
								65			70			75	80

Asp	Pro	Ala	Trp	Ser	Gln	Asn	Pro	Leu	Tyr	Lys	Arg	Tyr	Leu	Gln	Thr
								85			90			95	

Tyr	Leu	Ala	Trp	Arg	Lys	Glu	Leu	His	Asp	Trp	Ile	Asp	Glu	Ser	Asn
								100			105			110	

Leu	Ala	Pro	Lys	Asp	Val	Ala	Arg	Gly	His	Phe	Val	Ile	Asn	Leu	Met
								115			120			125	

Thr	Glu	Ala	Met	Ala	Pro	Thr	Asn	Thr	Ala	Ala	Asn	Pro	Ala	Ala	Val
								130			135			140	

Lys	Arg	Phe	Phe	Glu	Thr	Gly	Gly	Lys	Ser	Leu	Leu	Asp	Gly	Leu	Ser
								145			150			155	160

His Leu Ala Lys Asp Leu Val His Asn Gly Gly Met Pro Ser Gln Val

165	170	175
Asn Met Gly Ala Phe Glu Val Gly Lys Ser Leu Gly Val Thr Glu Gly		
180	185	190
Ala Val Val Phe Arg Asn Asp Val Leu Glu Leu Ile Gln Tyr Lys Pro		
195	200	205
Thr Thr Glu Gln Val Tyr Glu Arg Pro Leu Leu Val Val Pro Pro Gln		
210	215	220
Ile Asn Lys Phe Tyr Val Phe Asp Leu Ser Pro Asp Lys Ser Leu Ala		
225	230	235
Arg Phe Cys Leu Arg Asn Asn Val Gln Thr Phe Ile Val Ser Trp Arg		
245	250	255
Asn Pro Thr Lys Glu Gln Arg Glu Trp Gly Leu Ser Thr Tyr Ile Glu		
260	265	270
Ala Leu Lys Glu Ala Val Asp Val Val Thr Ala Ile Thr Gly Ser Lys		
275	280	285
Asp Val Asn Met Leu Gly Ala Cys Ser Gly Gly Ile Thr Cys Thr Ala		
290	295	300
Leu Leu Gly His Tyr Ala Ala Ile Gly Glu Asn Lys Val Asn Ala Leu		
305	310	315
Thr Leu Leu Val Ser Val Leu Asp Thr Thr Leu Asp Ser Asp Val Ala		
325	330	335
Leu Phe Val Asn Glu Gln Thr Leu Glu Ala Ala Lys Arg His Ser Tyr		
340	345	350
Gln Ala Gly Val Leu Glu Gly Arg Asp Met Ala Lys Val Phe Ala Trp		
355	360	365
Met Arg Pro Asn Asp Leu Ile Trp Asn Tyr Trp Val Asn Asn Tyr Leu		
370	375	380
Leu Gly Asn Glu Pro Pro Val Phe Asp Ile Leu Phe Trp Asn Asn Asp		
385	390	395
400		
Thr Thr Arg Leu Pro Ala Ala Phe His Gly Asp Leu Ile Glu Leu Phe		
405	410	415
Lys Asn Asn Pro Leu Ile Arg Pro Asn Ala Leu Glu Val Cys Gly Thr		
420	425	430
Pro Ile Asp Leu Lys Gln Val Thr Ala Asp Ile Phe Ser Leu Ala Gly		
435	440	445
Thr Asn Asp His Ile Thr Pro Trp Lys Ser Cys Tyr Lys Ser Ala Gln		
450	455	460
Leu Phe Gly Gly Asn Val Glu Phe Val Leu Ser Ser Ser Gly His Ile		
465	470	475
480		
Gln Ser Ile Leu Asn Pro Pro Gly Asn Pro Lys Ser Arg Tyr Met Thr		
485	490	495
Ser Thr Glu Val Ala Glu Asn Ala Asp Glu Trp Gln Ala Asn Ala Thr		

500

505

510

Lys His Thr Asp Ser Trp Trp Leu His Trp Gln Ala Trp Gln Ala Gln  
 515 520 525

Arg Ser Gly Glu Leu Lys Lys Ser Pro Thr Lys Leu Gly Ser Lys Ala  
 530 535 540

Tyr Pro Ala Gly Glu Ala Ala Pro Gly Thr Tyr Val His Glu Arg  
 545 550 555

<210> 36  
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 <212> PRT  
 <213> *Pseudomonas cichorii* YN2 ; FERM BP-7375

<400> 36  
 Met Arg Asp Lys Pro Ala Arg Glu Ser Leu Pro Thr Pro Ala Lys Phe  
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Ile Asn Ala Gln Ser Ala Ile Thr Gly Leu Arg Gly Arg Asp Leu Val  
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Ser Thr Leu Arg Ser Val Ala Ala His Gly Leu Arg His Pro Val His  
 35 40 45

Thr Ala Arg His Ala Leu Lys Leu Gly Gly Gln Leu Gly Arg Val Leu  
 50 55 60

Leu Gly Asp Thr Leu His Pro Thr Asn Pro Gln Asp Arg Arg Phe Asp  
 65 70 75 80

Asp Pro Ala Trp Ser Leu Asn Pro Phe Tyr Arg Arg Ser Leu Gln Ala  
 85 90 95

Tyr Leu Ser Trp Gln Lys Gln Val Lys Ser Trp Ile Asp Glu Ser Asn  
 100 105 110

Met Ser Pro Asp Asp Arg Ala Arg Ala His Phe Ala Phe Ala Leu Leu  
 115 120 125

Asn Asp Ala Val Ser Pro Ser Asn Ser Leu Leu Asn Pro Leu Ala Ile  
 130 135 140

Lys Glu Ile Phe Asn Ser Gly Gly Asn Ser Leu Val Arg Gly Ile Gly  
 145 150 155 160

His Leu Val Asp Asp Leu Leu His Asn Asp Gly Leu Pro Arg Gln Val  
 165 170 175

Thr Arg His Ala Phe Glu Val Gly Lys Thr Val Ala Thr Thr Gly  
 180 185 190

Ala Val Val Phe Arg Asn Glu Leu Leu Glu Leu Ile Gln Tyr Lys Pro  
 195 200 205

Met Ser Glu Lys Gln Tyr Ser Lys Pro Leu Leu Val Val Pro Pro Gln  
 210 215 220

Ile Asn Lys Tyr Tyr Ile Phe Asp Leu Ser Pro His Asn Ser Phe Val  
 225 230 235 240

Gln Phe Ala Leu Lys Asn Gly Leu Gln Thr Phe Val Ile Ser Trp Arg

245	250	255
Asn Pro Asp Val Arg His Arg Glu Trp Gly Leu Ser Thr Tyr Val Glu		
260	265	270
Ala Val Glu Glu Ala Met Asn Val Cys Arg Ala Ile Thr Gly Ala Arg		
275	280	285
Glu Val Asn Leu Met Gly Ala Cys Ala Gly Gly Leu Thr Ile Ala Ala		
290	295	300
Leu Gln Gly His Leu Gln Ala Lys Arg Gln Leu Arg Arg Val Ser Ser		
305	310	315
320		
Ala Thr Tyr Leu Val Ser Leu Leu Asp Ser Gln Leu Asp Ser Pro Ala		
325	330	335
Thr Leu Phe Ala Asp Glu Gln Thr Leu Glu Ala Ala Lys Arg Arg Ser		
340	345	350
Tyr Gln Lys Gly Val Leu Glu Gly Arg Asp Met Ala Lys Val Phe Ala		
355	360	365
Trp Met Arg Pro Asn Asp Leu Ile Trp Ser Tyr Phe Val Asn Asn Tyr		
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Leu Met Gly Lys Glu Pro Pro Ala Phe Asp Ile Leu Tyr Trp Asn Asn		
385	390	395
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405	410	415
Phe Lys His Asn Pro Leu Ser His Pro Gly Gly Leu Glu Val Cys Gly		
420	425	430
Thr Pro Ile Asp Leu Gln Lys Val Thr Val Asp Ser Phe Ser Val Ala		
435	440	445
Gly Ile Asn Asp His Ile Thr Pro Trp Asp Ala Val Tyr Arg Ser Thr		
450	455	460
Leu Leu Leu Gly Gly Glu Arg Arg Phe Val Leu Ala Asn Ser Gly His		
465	470	475
480		
Val Gln Ser Ile Leu Asn Pro Pro Asn Asn Pro Lys Ala Asn Tyr Leu		
485	490	495
Glu Gly Ala Lys Leu Ser Ser Asp Pro Arg Ala Trp Tyr Tyr Asp Ala		
500	505	510
Lys Pro Val Asp Gly Ser Trp Trp Thr Gln Trp Leu Gly Trp Ile Gln		
515	520	525
Glu Arg Ser Gly Ala Gln Lys Glu Thr His Met Ala Leu Gly Asn Gln		
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<223> Primer for PCR multiplication		
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cgagcaagct tgctcctaca ggtaaaggc	29	
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<210> 44  
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<400> 44  
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<210> 45  
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 <212> DNA  
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<400> 45  
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<210> 46  
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 <212> DNA  
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<400> 46  
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<210> 47  
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<220>  
 <223> Coding chain for peptide of SEQ ID:1

<400> 47  
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<210> 48  
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 <212> DNA  
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 <223> Complimentary chain for ssDNA of SEQ ID:1

<400> 48  
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<210> 49  
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<220>  
<223> Coding chain for peptide of SEQ ID:2

<400> 49  
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<210> 50  
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<220>  
<223> Complimentary chain for ssDNA of SEQ ID:2

<400> 50  
ccgaacctcc accagtata aaaggattcc gagtcgtaat cgaagactgg 50

<210> 51  
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<220>  
<223> Coding chain for peptide of SEQ ID:3

<400> 51  
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<210> 52  
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<212> DNA  
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<220>  
<223> Complimentary chain for ssDNA of SEQ ID:3

<400> 52  
ccgaacctcc accatataac tgcgtcgaat tcggatgtat attcataaag 50

<210> 53  
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<220>  
<223> Coding chain for peptide of SEQ ID:4

<400> 53  
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<210> 54  
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<220>  
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<400> 54  
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<210> 55  
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<220>  
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<400> 55  
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<210> 56  
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<400> 56  
ccgaacctcc acccccatcc tcatgagaac tccgatgcat atgcggctgg 50

<210> 57  
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<220>  
<223> Coding chain for peptide of SEQ ID:6

<400> 57  
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<210> 58  
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<400> 58  
ccgaacctcc accctgacta tgaggactca tcggcccat agtagtattg 50

<210> 59  
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<220>  
<223> Coding chain for peptide of SEQ ID:7

<400> 59  
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<210> 60

<211> 50  
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<220>  
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<400> 60  
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<210> 61  
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<220>  
<223> Coding chain for peptide of SEQ ID:8

<400> 61  
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<210> 62  
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<400> 62  
ccgaacctcc accaatcata ggcatagtct gaggctcaaa atgaggcagcg 50

<210> 63  
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<220>  
<223> Coding chain for peptide of SEQ ID:9

<400> 63  
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<210> 64  
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<220>  
<223> Complimentary chain for ssDNA of SEQ ID:9

<400> 64  
ccgaacctcc acccctcatc atatgcggag gacgatgaag ctgatgatcg 50

<210> 65  
<211> 58  
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<220>  
<223> Coding chain for peptide of SEQ ID:10

<400> 65

gatccgttgc gcgtcatcg tcgtggatc cgcatgatct tggtaggt tcggagct 58  
<210> 66  
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<223> Complimentary chain for ssDNA of SEQ ID:10  
  
<400> 66  
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<210> 67  
<211> 58  
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<220>  
<223> Coding chain for peptide of SEQ ID:11  
  
<400> 67  
gatccatgtat gcagagggat catcatcagc ataatgcgcata ggtggaggt tcggagct 58  
  
<210> 68  
<211> 50  
<212> DNA  
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<223> Complimentary chain for ssDNA of SEQ ID:11  
  
<400> 68  
ccgaacctcc accctgcgcata ttatgctgtat gatgtatccct ctgcattat 50  
  
<210> 69  
<211> 58  
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<220>  
<223> Coding chain for peptide of SEQ ID:12  
  
<400> 69  
gatccgttac ttttatacg gtggatcatg cggcgcaaga tggtaggt tcggagct 58  
  
<210> 70  
<211> 50  
<212> DNA  
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<220>  
<223> Complimentary chain for ssDNA of SEQ ID:12  
  
<400> 70  
ccgaacctcc accatcttgc ggccatgtat ccaccgtatg aagagtaacg 50  
  
<210> 71  
<211> 58  
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<220>

<223> Coding chain for peptide of SEQ ID:13

<400> 71  
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<210> 72

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:13

<400> 72

ccgaacctcc accaggccta ggactcggt tcataaccac agaaacagag 50

<210> 73

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:14

<400> 73

gatccccatct tcagtctatg aagcctcgta ctcatgtgtt gggtaggt tcggagct 58

<210> 74

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:14

<400> 74

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<210> 75

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:15

<400> 75

gatccattcc taatgttagt actttgcgtc agcctgcgcg tggtaggt tcggagct 58

<210> 76

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:15

<400> 76

ccgaacctcc accacgcgca ggctgacgca aagtctcagc attagaaatg 50

<210> 77

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:16

<400> 77

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<210> 78

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:16

<400> 78

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<211> 58

<212> DNA

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<220>

<223> Coding chain for peptide of SEQ ID:17

<400> 79

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<210> 80

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:17

<400> 80

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<210> 81

<211> 58

<212> DNA

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<223> Coding chain for peptide of SEQ ID:18

<400> 81

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<210> 82

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:18

<400> 82

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<210> 83

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:19

<400> 83

gatcctcgat gatgcgttg aatattcgtc tcgggattct tggtgaggt tcggagct 58

<210> 84

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:19

<400> 84

ccgaacctcc accaagaatc ccgagacgaa tattcacatg catcatcgag 50

<210> 85

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:20

<400> 85

gatccgcgcc gatgcgtcat atgaagagtc tgtatcgcc gggtgaggt tcggagct 58

<210> 86

<211> 50

<212> DNA

<213> Artificial Sequence

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<223> Complimentary chain for ssDNA of SEQ ID:20

<400> 86

ccgaacctcc acccgccccga tacagactct tcatatgtatcgcgcg 50

<210> 87

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:21

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<210> 88

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:21

<400> 88  
ccgaacctcc accctgcgc atatgcgtat gatgatccct ctgcatacatg 50

<210> 89  
<211> 58  
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<220>  
<223> Coding chain for peptide of SEQ ID:22

<400> 89  
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<210> 90  
<211> 50  
<212> DNA  
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<223> Complimentary chain for ssDNA of SEQ ID:22

<400> 90  
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<210> 91  
<211> 58  
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<220>  
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<400> 91  
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<210> 92  
<211> 50  
<212> DNA  
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<220>  
<223> Complimentary chain for ssDNA of SEQ ID:23

<400> 92  
ccgaacctcc acccgatac atccgaggag tatgaggaag cggctccaag 50

<210> 93  
<211> 58  
<212> DNA  
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<220>  
<223> Coding chain for peptide of SEQ ID:24

<400> 93  
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<210> 94  
<211> 50  
<212> DNA  
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<220>  
<223> Complimentary chain for ssDNA of SEQ ID:24

<400> 94  
ccgaacctcc acccggagcc cacggcccag aatcaggctc atacagctgg 50

<210> 95  
<211> 58  
<212> DNA  
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<220>  
<223> Coding chain for peptide of SEQ ID:25

<400> 95  
gatcctggat gactaagatg cctactacgc atactaggta tggtgagggt tcggagct 58

<210> 96  
<211> 50  
<212> DNA  
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<220>  
<223> Complimentary chain for ssDNA of SEQ ID:25

<400> 96  
ccgaacctcc accataaccta gatatcgtag taggcatctt agtcatccag 50

<210> 97  
<211> 58  
<212> DNA  
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<220>  
<223> Coding chain for peptide of SEQ ID:26

<400> 97  
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<210> 98  
<211> 50  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Complimentary chain for ssDNA of SEQ ID:26

<400> 98  
ccgaacctcc accaggcaac gcccttagtca tagaatacat aggtatgtgg 50

<210> 99  
<211> 58  
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<210> 100  
<211> 50

<212> DNA  
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<220>  
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<210> 101  
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<212> DNA  
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<220>  
<223> Coding chain for peptide of SEQ ID:28

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<210> 102  
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<212> DNA  
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<220>  
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<400> 102  
ccgaacctcc acccgatccc gacatatgt actgcataa aggcaatgg 50

<210> 103  
<211> 58  
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<220>  
<223> Coding chain for peptide of SEQ ID:29

<400> 103  
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<210> 104  
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<212> DNA  
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<220>  
<223> Complimentary chain for ssDNA of SEQ ID:29

<400> 104  
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<210> 105  
<211> 52  
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<220>  
<223> Coding chain for peptide of SEQ ID:30

<400> 105  
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<210> 106

<211> 44

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:30

<400> 106

ccgaacctcc accgcaatac cgagactgcg taggcggaca agcg 44

<210> 107

<211> 52

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:31

<400> 107

gatccgcttg taatggcatg ttggccttc agtgcggtagg aggttcggag ct 52

<210> 108

<211> 44

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:31

<400> 108

ccgaacctcc accgcaactga aaggccaaca tgccattaca agcg 44

<210> 109

<211> 52

<212> DNA

<213> Artificial Sequence

<220>

<223> Coding chain for peptide of SEQ ID:32

<400> 109

gatccgcttg tacgccgaag ccgggcaagc attgcggtagg aggttcggag ct 52

<210> 110

<211> 44

<212> DNA

<213> Artificial Sequence

<220>

<223> Complimentary chain for ssDNA of SEQ ID:32

<400> 110

ccgaacctcc accgcaatgc ttgccccgt tcggcgtaaca agcg 44

<210> 111

<211> 972

<212> DNA

<213> Artificial Sequence

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<223> HPR coding artificial sense-sequence

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 accttctac<sub>g</sub> acaattcat<sub>g</sub> tccta<sub>at</sub>gtc tcta<sub>ac</sub>atcg tacggata<sub>c</sub> tattgtcaat 120  
 gagcta<sub>ag</sub>at cagaccctcg tattgccc<sub>gc</sub> agcattc<sub>tc</sub> gtcticactt ccacgact<sub>gc</sub> 180  
 ttgttaat<sub>g</sub> gtttgtacgc atcgatctt<sub>g</sub> ttagacaaca caacatcatt tcgaacagag 240  
 aaagatgc<sub>gt</sub> ttggaaacgc aaactcggca agaggattc cagtgtt<sub>ga</sub> tagaatgaaa 300  
 gccgcgg<sub>tg</sub> gg agatgc<sub>at</sub> ccc<sub>aa</sub>agaacc gtttcatgc<sub>g</sub> cagatttgc<sub>t</sub> caccat<sub>tg</sub>ca 360  
 gctcaacaat ctgtactt<sub>tt</sub> ggcgggaggt<sub>t</sub> ctttctt<sub>gg</sub>a gagtttcc<sub>ttt</sub> gggcagaaga 420  
 gatagcttac aagcatttct<sub>t</sub> gga<sub>t</sub>t<sub>tt</sub>gct<sub>t</sub> aatgcaaa<sub>t</sub>c ttccagctcc attttcaca 480  
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 ct<sub>tc</sub>cg<sub>tg</sub>gac tatgtccc<sub>c</sub>t caatggtaat ctaagcgc<sub>tt</sub> tgg<sub>tg</sub>gattt tgatctac<sub>gt</sub> 720  
 acgccaacga tt<sub>tt</sub>tgacaa caaatactat gtgaatctcg aagaggaaaa aggactt<sub>at</sub>c 780  
 caaagc<sub>g</sub>acc aagagtgtt ctctagcccc aatgccact<sub>g</sub> acacaatccc ttgg<sub>tg</sub>gaga 840  
 tcatttgc<sub>ta</sub> atagcacaca aacattcttc aatgcattt<sub>g</sub> tggaggc<sub>gt</sub> ggataggat<sub>g</sub> 900  
 ggaaacat<sub>ta</sub> cac<sub>ct</sub>ttac aggaactcaa ggacagat<sub>ca</sub> ggttgaatt<sub>t</sub> taggg<sub>tg</sub>tg<sub>tg</sub> 960  
 aactccaaact<sub>t</sub> ct 972

<210> 112  
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 <212> DNA  
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<220>  
 <223> Primer for PCR multiplication

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 accttctac<sub>g</sub> acaattcat<sub>g</sub> tccta<sub>at</sub>gtc tcta<sub>ac</sub>atcg tacggata<sub>c</sub> tattgtcaat 120

<210> 113  
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<220>  
 <223> Primer for PCR multiplication

<400> 113  
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<210> 114  
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<220>

<223> Primer for PCR multiplication

<400> 114

tgttgtctaa caagatcgat gcgtcacaac cattaacaaa gcagtcgtgg aagtgaagac 60

gaaggatgct cgccgcata cgagggtctg atcttagctc attgacaata gtatcccgt 120

<210> 115

<211> 30

<212> DNA

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<220>

<223> Primer for PCR multiplication

<400> 115

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<211> 120

<212> DNA

<213> Artificial Sequence

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<223> Primer for PCR multiplication

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atcgatcttg ttagacaaca caacatcatt tcgaacagag aaagatgcgt ttggaaacgc 60

aaactcggca agaggatttc cagtgattga tagaatgaaa gccgcggtgg agagtgcgt 120

<210> 117

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 117

atcgatcttg ttagacaaca caacatcatt 30

<210> 118

<211> 120

<212> DNA

<213> Artificial Sequence

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<223> Primer for PCR multiplication

<400> 118

tcttctgccca aaaggaactc tccaagaagg acctccggcc aaagtgcacag attgttgcgc 60

tgcaatggtg agcaaattctg cgcatgaaac ggttcttggg catgcactct ccaccgcggc 120

<210> 119

<211> 30

<212> DNA

<213> Artificial Sequence

<220>  
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<210> 120  
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<220>  
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<210> 121  
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<220>  
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<400> 121  
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<210> 122  
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<400> 122  
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<210> 123  
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<400> 123  
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<210> 124  
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cttcgtggac tatgtcccct caatggtaat ctaagcgctt tggtgattt tgatctacgt 120

<210> 125

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 125

tacaacctca gcaacaccgg tttacccgat 30

<210> 126

<211> 120

<212> DNA

<213> Artificial Sequence

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<223> Primer for PCR multiplication

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cgagattcac atagtatttg ttgtcaaaaa tcgttggcgt acgttagatca aaatccacca 120

<210> 127

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<210> 128

<211> 120

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<223> Primer for PCR multiplication

<400> 128

ctctagcccc aatgccactg acacaatccc ttttgtgaga tcatttgcta atagcacaca 60

aacattcttc aatgcatttg tggaggcgat ggataggatg ggaaacatta cacccttac 120

<210> 129

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 129

ctctagcccc aatgccactg acacaatccc 30

<210> 130  
<211> 72  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer for PCR multiplication

<400> 130  
agagttggag ttcaccaccc tacaattcaa cctgatctgt ctttgaggttc ctgttaaggagg 60  
tgtaatgttt cc 72

<210> 131  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer for PCR multiplication

<400> 131  
agagttggag ttcaccaccc tacaattcaa 30

<210> 132  
<211> 58  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer for PCR multiplication

<400> 132  
agtccggatcc gtttatgcga atcagactcc gccttctaag ggcgcgggtg gaggttcg 58

<210> 133  
<211> 34  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer for PCR multiplication

<400> 133  
aggcctcgag agagttggag ttcaccaccc taca 34

<210> 134  
<211> 1695  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> GroEL coding artificial sense-sequence

<400> 134  
gtttatgcga atcagactcc gccttctaag ggcgcgggtg gaggttcgat ggcagctaaa 60  
gacgtaaaat tcggtaacga cgctcggtgtg aaaatgctgc gcccgtaaa cgtactggca 120  
gatgcagtga aagttaccct cggccaaaa ggcgttaacg tagttctgga taaatctttc 180  
ggtgccaccca ccatcaccaa agatgggttt tccgttgctc gtgaaatcga actggaaagac 240

aagttcgaaa atatgggtgc gcagatggtg aaagaaggta cctctaaagc aaacgacgct 300  
gcagggcagc gtaccaccac tgcaaccgtt ctggctcagg ctatcatcac tgaaggctgt 360  
aaagctgttg ctgcggccat gaacctgatg gacctgaaac gtggtatcga caaagcggtt 420  
accgctgcag ttgaagaact gaaagcgctg tccgtaccat gctctgactc taaagcgatt 480  
gctcagggttg gtaccatctc cgcttaactcc gacgaaaccg taggttaact gatcgctgaa 540  
gcgtatggaca aagtccgtaa agaaggcggtt atcaccgttg aagacggtac cggtctgcag 600  
gacgaactgg acgtgggttga aggtatgcag ttgcaccgtg gctacctgtc tccttacitc 660  
atcaacaagc cggaaactgg cgcagtagaa ctggaaagcc cgttcatacct gctggctgac 720  
aagaaaaatct ccaacatccg cggaaatgctg ccgttctgg aagctgttgtc caaagcaggc 780  
aaaccgctgc ttatcatcgc tgaagatgtt gaaggcgaag cgctggcaac tgctgttgtt 840  
aacaccatcc gtggcatcgt gaaagtgcgt gcggtaaag caccgggtt cggcgatcgt 900  
cgtaaagcta tgctgcagga tatcgcaacc ctgactggcg gtaccgtat ctctgaagag 960  
atcggtatgg agcgtggaaaa agcaaccctg gaagacctgg gtctaggctaa acgtgttgtt 1020  
atcaacaag acaccaccac tatcatcgat ggcgtgggtt aagaagctgc aatccaggc 1080  
cggttgtctc agatccgtca gcagattgtt gaagcaactt ctgactacga ccgtgaaaaaa 1140  
ctgcaggaac gcgttagcgtt actggcaggc ggcgttgcag ttatcaaagt gggtgctgtc 1200  
accgaaggtaa aatgaaaga gaaaaaagca cgcgttgaag atgccttgcga cgcgaccgtt 1260  
gctgcgttag aagaaggcgtt ggttgttgtt ggtggtgttgc cgtcgatccg cgtacgtct 1320  
aaactggctg accgtcggtgg tcagaacgaa gaccagaacg tgggtatcaa agttgcactg 1380  
cgtcaatgg aagctccgtt gcgtcagatc gtattgaact gcggcgaaga accgtctgtt 1440  
gttgcataaca ccgttaaagg cggcgcacggc aactacggtt acaacgcagc aaccgaagaa 1500  
tacggcaaca tgcgtcgat gggtatccgtt gacccaacca aagtaactcg ttctgctctg 1560  
cgtacgcag ctctgtggc tggcctgtatg atcaccaccg aatgcgttgtt taccgacgtt 1620  
ccgaaaaacg atgcgttgta cttagggcgtt gctggcgtt gggcggcat gggtggcatg 1680  
ggcggcaiga tgtaa 1695

〈210〉 135

〈211〉 120

<212> DNA

### <213> Artificial Sequence

220

## 〈223〉 Primer for PCR multiplication

〈400〉 135

gtttatgcga atcagactcc gccttctaag gcgcgggtg gaggttcgat ggcagctaaa 60

gacgtaaaat tcggtaacga cgctcgtgtg aaaatgcgc gcggcgtaaa cgtactggca 120

<210> 136  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer for PCR multiplication

<400> 136  
gttatgcga atcagactcc gccttctaag 30

<210> 137  
<211> 120  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer for PCR multiplication

<400> 137  
gagcaacgga aacaccatct ttggtgatgg tcggtgacc gaaagattt tccagaacta 60  
cgttacggcc tttggaccg agggtaactt tcactgcatt tgccagtacg ttacgccgc 120

<210> 138  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer for PCR multiplication

<400> 138  
gagcaacgga aacaccatct ttggtgatgg 30

<210> 139  
<211> 120  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer for PCR multiplication

<400> 139  
agatggtgtt tccgttgctc gtgaaatcga actggaagac aagttcgaaa atatgggtgc 60  
gcagatggtg aaagaagtgg cctctaaagc aaacgacgct gcaggcgacg gtaccaccac 120

<210> 140  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer for PCR multiplication

<400> 140  
agatggtgtt tccgttgctc gtgaaatcga 30

<210> 141  
<211> 120  
<212> DNA  
<213> Artificial Sequence

&lt;220&gt;

&lt;223&gt; Primer for PCR multiplication

&lt;400&gt; 141

aaccgcttgcgataccacgtttcaggatcatcggttcatgcccgacaaacagctt 60  
cagacacctcagtgtatgatagccctgagccatgtacggttgcgtgggtacgtcgccgtc 120

&lt;210&gt; 142

&lt;211&gt; 30

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Primer for PCR multiplication

&lt;400&gt; 142

aaccgcttgcgataccacgtttcaggatc 30

&lt;210&gt; 143

&lt;211&gt; 120

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Primer for PCR multiplication

&lt;400&gt; 143

gtggtatcgacaaagcggttaccgctgcagtttgaagaactgaaagcgctgtccgttaccat 60  
gctctgactctaaggcgattgctcaggatgttaccatctcgcttaactccgacgaaaccg 120

&lt;210&gt; 144

&lt;211&gt; 30

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Primer for PCR multiplication

&lt;400&gt; 144

gtggtatcgacaaagcggttaccgctgcag 30

&lt;210&gt; 145

&lt;211&gt; 120

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Primer for PCR multiplication

&lt;400&gt; 145

tcaaccacgtccagttcgctctgcagacccgttaccgttcaacgggtataacgccttct 60  
tttaccgacttgtccatcgcttcagcgatcagttaacctacgtttcgctcgagtttagcg 120

&lt;210&gt; 146

&lt;211&gt; 30

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Primer for PCR multiplication

<400> 146  
tcaaccacgt ccagttcgtc ctgcagacccg 30

<210> 147

<211> 120

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 147  
gacgaactgg acgtgggttga aggtatgcag ttcgaccgtg gctacctgtc tccttacttc 60  
atcaacaaggc cgaaaactgg cgcagtagaa ctggaaagcc cgttcatcct gctggctgac 120

<210> 148

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 148  
gacgaactgg acgtgggttga aggtatgcag 30

<210> 149

<211> 120

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 149  
cttcgccttc tacatcttca gcgatgataa gcagcggtt gcctgccttg gcaacagctt 60  
ccagaaccgg cagcatttcg cggatgttgg agatttctt gtcagccagc aggatgaacg 120

<210> 150

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 150

cttcgccttc tacatcttca gcgatgataa 30

<210> 151

<211> 120

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 151

tgaagatgtta gaaggcgaag cgctggcaac tgctgttgtt aacaccattc gtggcatcgt 60

gaaagtgcgt gcggtaaag caccggctt cgccatcg tggtaaagcta tgctgcagga 120

<210> 152

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 152

tgaagatgt aaggcgaag cgctggcaac 30

<210> 153

<211> 120

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 153

cacaacacgt tttagcctgac ccaggttttc cagggttgct tttccagct ccataccat 60

tccttcagag atcacggtag cggcgttcag ggttgcata tcctgcagca tagctttacg 120

<210> 154

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 154

cacaacacgt tttagcctgac ccaggttttc 30

<210> 155

<211> 120

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 155

gtcaggctaa acgttttgat atcaacaaag acaccaccat tatcatcgat ggcgtgggt 60

aagaagctgc aatccaggcc cggtttgtc agatccgtca gcagattgaa gaagcaactt 120

<210> 156

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 156

gtcaggctaa acgttttgat atcaacaaag 30

<210> 157

<211> 120  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer for PCR multiplication

<400> 157  
tctttcattt caacttcggt agcagcaccc actttgataa ctgcaacgcc gcctgccagt 60  
ttcgctacgc gttccctgcag tttttcacgg tcgttagtcag aagttgcttc ttcaatctgc 120

<210> 158  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer for PCR multiplication

<400> 158  
tctttcattt caacttcggt agcagcaccc 30

<210> 159  
<211> 120  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer for PCR multiplication

<400> 159  
accgaagtgtt aatgaaaga gaaaaaagca cgcgttgaag atgccttgca cgcgaccgt 60  
gctgcggtag aagaaggcgt gtttgcgtt ggtgggttgt cgctgatccg ctagcgtct 120

<210> 160  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer for PCR multiplication

<400> 160  
accgaagtgtt aatgaaaga gaaaaaagca 30

<210> 161  
<211> 120  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer for PCR multiplication

<400> 161  
agttaatac gatctgacgc agcggagctt ccattgcacg cagtgcact ttgataacca 60  
cgttctggtc ttctgttctga ccacgcaggc cagccagttt agacgcgtacg cggatcagcg 120

<210> 162  
<211> 30  
<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 162

agttaatac gatctgacgc agcggaggctt , 30

<210> 163

<211> 120

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 163

gcgttagatc gtattgaact gcccgaaga accgtctgtt gttgctaaca ccgttaagg 60

cggcgacggc aactacggtt acaacgcagc aaccgaagaa tacggcaaca tgatcgacat 120

<210> 164

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 164

gcgttagatc gtattgaact gcccgaaga 30

<210> 165

<211> 120

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 165

caggtcggta accatgcatt cgggggtat catcaggcca gccacagaag ctgcgtactg 60

cagagcagaa cgagttactt tgggggtc caggataccc atgtcgatca tggccgta 120

<210> 166

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 166

caggtcggta accatgcatt cgggggtat 30

<210> 167

<211> 95

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR multiplication

<400> 167  
 ttacatcatg ccgccccatgc caccatgcc gcccataccg ccagcagcgc ctaagttagc 60  
 tgcattttt ttcggcaggc cggttaaccat gcatt 95

<210> 168  
 <211> 30  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer for PCR multiplication

<400> 168  
 aggcctcgag ttacatcatg ccgccccatgc 30

<210> 169  
 <211> 33  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer for PCR multiplication

<400> 169  
 ttacatcatg ccgccccatgc caccatgcc gcc 33

<210> 170  
 <211> 8  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> anodisk membrane-binding peptide

<400> 170  
 Tyr Ala Gln Thr Pro Pro Ser Arg  
 1 5

<210> 171  
 <211> 12  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> anodisk membrane-binding peptide

<400> 171  
 Leu Tyr Ala Gln Gln Thr Pro Pro Ser Arg Ser Arg  
 1 5 10

<210> 172  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> anodisk membrane-binding peptide

<400> 172  
 Val Tyr Ala Asn Gln Thr Pro Pro Ser Arg Ala Arg Ala Lys Ala Arg  
 1 5 10 15

<210> 173  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> anodisk membrane-binding peptide

<400> 173  
Val Tyr Ala Asn Gln Thr Pro Pro Ser Lys Ala Arg Tyr Ala Gln  
1 5 10 15  
Thr Pro Pro Ser Arg  
20

<210> 174  
<211> 46  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Coding chain for peptide of SEQ ID:170

<400> 174  
gatcctatgc gcagactccg ccttctcggt gggagggttc ggagct 46

<210> 175  
<211> 38  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Complimentary chain for ssDNA of SEQ ID:170

<400> 175  
ccgaacctcc accccgagaa ggcggagtct gcgcata 38

<210> 176  
<211> 58  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Coding chain for peptide of SEQ ID:171

<400> 176  
gatccctcta tgcgcaacag actccgcctt ctgggtctcg gggtgagggt tcggagct 58

<210> 177  
<211> 50  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Complimentary chain for ssDNA of SEQ ID:171

<400> 177  
ccgaacctcc accccgagac cgagaaggcg gagtctgttg cgcataagag 50

<210> 178  
<211> 70  
<212> DNA  
<213> Artificial Sequence

&lt;220&gt;

&lt;223&gt; Coding chain for peptide of SEQ ID:1

&lt;400&gt; 178

gatccgttta tgcgaatcag actccgcctt ctcgcgcacg cgcaaaggcg cggggtgagg 60  
gttcggagct 70

&lt;210&gt; 179

&lt;211&gt; 62

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Complimentary chain for ssDNA of SEQ ID:1

&lt;400&gt; 179

ccgaacctcc accccgcgcc ttgcgcgtg cgcgagaagg cggagtcgtga ttgcataaaa 60  
cg 62

&lt;210&gt; 180

&lt;211&gt; 82

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Coding chain for peptide of SEQ ID:1

&lt;400&gt; 180

gatccgttta tgcgaatcag actccgcctt ctaaggcgcg gtatgcgcag actccgcctt 60  
ctcggggtgtt aggttcggagg ct 82

&lt;210&gt; 181

&lt;211&gt; 74

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Complimentary chain for ssDNA of SEQ ID:1

&lt;400&gt; 181

ccgaacctcc accccgagaa ggcggagtct gcgcataaccg cgccttagaa ggcggagtct 60  
gattcgcata aacg 74